Ves, it is the same topic as of the importance of this to small businessense it is our as funding permits. No, but how such collaboration is in the importance of the sound pushed to include the second processes of the collaboration is in the fact that bio-ins be the focus. No. Per the Small Business community can one class of Phase I, as Phase I, inspired technologies will of the concepts or a ITAL or inspired technologies will of the concepts or a ITAL or inspired technologies will of the concepts and Business community can one sensors or other innovative detection technologies will of the concepts a ITAL or inspired technologies will of the concepts a ITAL or inspired technologies will of the concepts and ITAL or inspired technologies in the promoter info on the bio-inspired technologies. The proof of cone class (i.e. nitroamines	For the proposal structure, please follow the proposal preparation guidance provided in the solicitation.	In the proposal structure, will it be possible to provide the technical background in the work plan section instead of the related work section?	10.1-004 and General	11/25/2009	ಪ	
Austral Topic Area This logic is many the exert some as the TRAS of BAAGE, If If I have writen dependent in a besteroid sample in a concentration of the processor of the proce	For Phase I, the proof of concept can involve one or more compounds and by Phase II, at least 2 compounds and one class (i.e. nifroamines or peroxides) should be shown as detectable by the technology.	How many different compounds should be targeted in the Phase I and Phase II of the works?	10.1-004	11/25/2009	12	
Date Copic Area Copic Area	if proposing a new sensing molecule fits into the ideas of molecular imprinted polymers and or other utilization of bo-inspired technologies, it would fit into the scope of this program. Please refer to the following Review paper for more info on the bi-inspired technologies. Richard G. Smith, Natasha DScuzza and Stephen Nickin, "A Review of Biosensors and Biologically-inspired Systems for Explosives Detection" <i>Analyst</i> , 2008, 133, 571 - 584.	If one proposes development of a new sensing molecule for an explosive compound, will it be within the scope of the program?	10,1-004	11/25/2009	-3 -3	
Date Topic Area Answerd Martix	Due to the fact that bio-inspired sensor technologies are still realively immature, we are looking for innovative efforts to incorporate these technologies into working detection systems. We are looking for what the small business community can come up with for incorporating these technologies of immunor, enzymatic and whole ceil sensors or other innovative bio-inspired technologies, innovative and creative merging of traditional explosives detection technologies with bio-inspired technologies are also of interest. For Phase I, we are looking for feasibility of the concept so a TRL of 2 or higher is preferred though if you could get a technology with a starting TRL of 1 to perform in a promising way, that would be acceptable.	What starting TRL level for the Phase I program is envisioned?	10.1-094	11/25/2009	10	
Date Topic Area Topic Area	No. Per the Small Business Administration's SBIR Policy Directive. Phase II funding must be based upon the results of Phase I, as Phase II continues the researchiresearch and development effort from the completed Phase I.	The Phase 1 for the subject SBIR Topic calls for a weighing various technology potions and a simulation of the recommended approach(s) that demonstrate the technology. If a company has a proprietary technology that has the potential to meet the requested performance would it be acceptable to submit a proposal that skips the Phase 1 objective to focus on building the Phase 2 advanced prototypes.	10.1-001 and General	11/25/2009	ø	
As of December 17, 2009 Date Topic Area Date Topic Area	Although visualization is important, it is not the primary component for this work. Hence, building one should not be the focus.	evel	10.1-003	11/25/2009	œ	
Date Topic Area Topic	Novel approaches would be welcome for this effort.	Would Phase I feasibility look significantly into novel and innovative solutions that will effectively meet DHS needs and requirements for information sharing and abstraction amongst various first responders echelons (particularly for wide area disaster management) and leave the pragmato/developmental issues such as integration of such novel solutions within the DHS platforms for Phase II? Or does the most respected DHS Program Manager expect a Phase I effort that is directed to development solutions integrated with the existing DHS platforms from the commencement of Phase I effort?	10,1-003	11/25/2009	7	
As of December 17, 2009 Date Topic Area Answered	Data fusion is not the objective. It was not mentioned in the solicitation topic description.	We are very interested in providing technological solutions that both horizontally fuse and vertically abstract information collected from many data sources. For example, first responder information from the police, fire department, and hospitals, all of which may be reporting different aspects of the same event, could be fused and resolved to provide a single, easily interpreted view of a certain event (e.g. the person arrested for fighting was also outside the burning building on 56th st.). Once fused, this information could be aggregated and abstracted across the chain of command, providing both detailed, street-level information to first responders and high-level statistics and overviews to higher level commanders. Would a technology like this be relevant and useful to this solicitation?	10.1-003	11/25/2009	ø	
As of December 17, 2009 Tris topic is nearly the exact same as the TFA-3 of BAA99-19 ("Rare variant detection in a bacterial sample using ultra-high throughput next generation sequencing technology"), white papers due on November 18. Is this a coincidence or is this a statement regarding the White Paper submissions for TFA-37 Do you expect to fund both the TFA-3 and the SBIR or does this imply there is no more funding for the TFA-37 Do you expect to fund both the TFA-3 and the SBIR or does this imply there is no more funding for the TFA-37 Do you expect to fund both the TFA-3 and the SBIR or does this imply there is no more funding for the TFA-37 Do you expect to fund to fund the SBIR or does this imply there is no more funding for the TFA-37 Ob you expect to fund the TFA-37 Do you expect to fund the same that such collaborations for testing, etc. need to be arranged by the end of Phase I? The deliverables for Phase I state "Federal state, and local collaborations need to be addressed." Does this mean that such collaborations for testing, etc. need to be arranged by the end of Phase I? The deliverables "Gestign a framework usable for homeland security applications." does that mean the design of an architecture in which "science tools and technologies a "ready being investigated by the Science and Technology Directorate's Command, Control and Interoperability Basic and Future Research" can be integrated into one transverk. It is the objective of this solicitation to develop a suite of Groupware or "Glueware" or CSCW (computer supported cools, etc.) into a "new common platform" and then allow the interaction and cooperation of multiple individuals at heterogonous sevels?	Not at all related to ICAV.	Does the solicitation relate to DHS's existing ICAV (integrated Common Analytical Viewer) in any way?	10.1-003	11/25/2009	Ċ1	
As of December 17, 2009 Topic Area Answered Topic Area	No, "glueware" is not the	is the objective of this solicitation to develop a suite of Groupware or "Glueware" or CSCW (computer supported copperative work) tools that will enable the integration of existing NVAC tools (visual analytics, discrete science tools, etc.) into a "new common platform" and then allow the interaction and cooperation of multiple individuals at heterogonous levels?	10.1-003	11/25/2009	82	
As of December 17, 2009 Topic Area Topic	1. Yes. Not in Phase I, but in Phase II.	By the deliverable "design a framework usable for homeland security applications," does that mean the design of an architecture in which "science tools and technologies a ready being investigated by the Science and Technology Directorate's Command, Control and Interoperability Basic and Future Research" can be integrated into one framework. 2. If so, will these technologies be made available for integration into the prototype system for testing in Phase II, or even for evaluation in Phase I?	10.1-003	11/25/2009		
As of December 17, 2009 As of December 17, 2009 As of December 17, 2009 Topic Area Topic Area Topic Area Topic Area Topic Area Topic Area This topic is nearly the exact same as the TFA-3 of BAA09-19 ('Rare variant detection in a bacterial sample using ultra-high throughput next generation sequencing technology'), white papers due on November 18 is this a coincidence or is this a statement regarding the White Paper submissions for TFA-37 Do you expect to fund both the TFA-3 and the SBIR or does this mply there is no more funding for the TFA-32 Or are these wholly unrelated topic requests (such as they come from two different parts of DHS)?	No, but how such collaborations would be enabled needs to be explained in Phase I.	essed." Does this	10.1-003	11/25/2009	5005	
10.1 Question and Answer Matrix As of December 17, 2009 Date Topic Area Question	Yes, it is the same topic as TFA-3 in BAA09-19. It was originally meant just for the SBIR solicitation but because of the importance of this topic to DHS, we also put it into the BAA to open it up to other researchers not involved in small businesses. It is our intent to fund proposals received in response to both the BAA and the SBIR solicitation, as funding permits.	<u>n</u> .	10.1-002	11/25/2009		
As of December 17, 2009	Answer		Topic Area	Date Answered	ID#	
10.1 Question and Answer Matrix		As of December 17, 2009				
		10.1 Question and Answer Matrix				

			10.1 Question and Answer Matrix As of December 17, 2009	
D#	Date	Topic Area	Question	Answer
4	12/10/2009	10.1-001	What background information can you provide regarding DHS's interest in advancing the state-of-the-art of energy storage devices - i.e., beyond what is commercially available? In particular, is there a specific existing and/or future DHS program for which energy storage is a limiting factor (& is perhaps the basis for this topic)?	 We are interested in developing "low-loss"/loss-less", electrical storage devices that are very small and compact. The application is for small unaftended sensors and tagging devices that need to be conceated and operate autonomously without being connected to an external power grid. Current commercial batteries do not provide the size, weight, and power requirements that are needed for our future applications. Unaftended sensors and small tagging devices.
15	12/10/2009	10.1-001	To assess compliance with the requirements stated in the topic, can you provide a typical average power draw for the target application (e.g., cell phone)?	Transmit ~200 mW of power, 3 second burst every 60 seconds.
ਰੰ	12/10/2009	10.1-001	I. Is it fair to assume that the emphasis is on increasing energy density and less on increased power density? Would his topic be open to new materials (e.g., electrodes and/or electrolytes) enabling increased performance of energy devices?	1. Yes 2. Yes
17	12/10/2009	10.1-005	is it possible to get more information about the "H-SB010 1-005 Synthetic Blometrics" research?	The solicitation topic description contains all of the information that is available at this time. The references for synthetic biometrics provided in the solicitation topic description should provide a good background on the topic
18	12/10/2009	10.1-005	is it permitted to integrate some current biometrics (or synthesis) SDK from other companies in the prototype tool?	Integration of existing components or tools is acceptable as long as plans for coordinating intellectual property icensing, and/or subcontracting procedures are identified in the proposal.
19	12/10/2009	General	Can you tell me how many proposals you received for the last solicitation and how many were awarded? Can you tell me the budget for new Phase (s?)	 The DHS S&T Directorate's SBIR Program received 155 proposals in response to the eight topics in the FYO22 solicitation. Thirty Phase I contracts were awarded (details can be found at https://www.sbir.dhs.gov. under the Awards link). Historically, indee Phase I contracts and one Phase II contract are budgeted to be awarded per topic area assuming quality proposals and available funds.
20	12/10/2009	10.1-003	What is meant by Visual Analytics? a) Some way of analyzing data via visual graphic manipulation? b) Display of data in graphic ways? c) Other What is meant by Synthetic World? a) Standard Stand-alone virtual world? b) Virtual world somehow integrated with the real world? c) Other	 Visual Analytics is defined in the web sites referenced in the topic description. "Synthetic worlds" refers to capabilities illustrated by Second Life and some modern gaming environments.
21	12/10/2009	10.1-002	Is the SBIR solicitation limited to commercially available NGS platforms?	No, the solicitation topic is not limited to commercially available NGS platforms. However, the platform must be sufficiently mature in terms of development to compete with the commercially available platforms and be able to address the needs outlined in the solicitation topic description. This will need to be clear in the proposal. Supporting data should be provided in the proposal to back up the claim of sufficient maturity.
22	12/10/2009	10,1-006	 Does the program manager have a preference for the type of biometric generated (flaces vs. irises vs. Ingerprints, etc.)? On a related note, is it preferable for the solicitation to address a single type of biometric (e.g. flaces) or multiple biometrics (e.g. flaces) insess, palms, etc.)? Can you provide any clarification on the specific performance metrics for Phase i? The solicitation calls for generation of biometrics that match the demographics and statistical attributes of the real world. Is there any information available about how this similarity will be measured? 	1. The program manager does not have a preference, but the program is meant to address DHS needs and requirements. The topic description specifically mentions fingerprints, inset, and/or facial bornerics that are believed to represent the greatest need at this time. The first phase allows for the needs and requirements assessment to be conducted and the specific approach to be identified as part of that effort. 2. There is no preference to address a single biometric bye vs. multiple biometrics. 3. The metrics should be established as part of the Phase I effort based on the needs and requirements assessment, the study of candidate approaches and the identification of viable technologies. Some of the metrics established could address specific quantificable performance measures for the similarities between the synthetic and real world data (e.g., resolution), while others metrics may be more qualitative (e.g., realism).
23	12/10/2009	10.1-006	1. What are typical tunnel dimensions and lengths? 2. What are typical mission durations? i.e. if drift rate is a primary error factor, over how long must drift remain within bounds? 3. What systems, if any, are presently used to map tunnels in real-time? i.e., what is this project intended to generate a replacement for? And, what is their accuracy? 4. What software is used to create and edit existing maps, independent of the real-time component?	1. For the purposes of this solicitation topic, the tunnel will be one meter in diameter and 2000 feet long. 2. For the purposes of this solicitation topic, a mission length will be one hour. 3. For the purposes of this solicitation topic, no system is presently being used to map tunnels. The accuracy associated with any mapping function proposed is as stipulated in the solicitation topic description for locating accuracy. 4. For the purpose of this solicitation topic, development of mapping software is not intended. Assume no systems are presently feded with these functions and the functions can be adequately addressed by the capabilities of commercially available software.
24	12/10/2009	10.1-004	My colleague and I are interested in the SBIR topic on Molecular Recognition of Explosives Detection. The approach we are considering is to use Molecularly imprinted polymers on a microcantilever system for the detection. Would this approach be within the focus of what you are looking for?	Yes, your technical idea does fall into the range of intended technologies for the SBIR topic "Molecular Recognition of Explosives Detection." Please refer to the following Review paper for more into on the bio-inspired technologies: technologies: Rechard G. Smith, Natasha D Souza and Stephen Nicklin, "A Review of Biosensors and Biologically-inspired Systems for Explosives Detection" Systems for Explosives Detection"
25	12/10/2009	General	Are SBIR solicitations only done on an annual basis? https://www.sbir.chs.gov/currentsolicitation.aspx. The current solicitations have a closing date of Jan. 4, 2010.	The DHS Science and Technology (S&T) Directorate issues SBIR solicitations two times each year. Generally, so citations are released in the November and May timeframes. The DHS Donestic Nuclear Detection Office (DNDO) releases SBIR solicitations once each year generally in the scring timeframe. For more information on the DHS S&T SBIR Program, please visit https://www.sbir.dhs.gov. For more information on the DHS DNDO SBIR Program, please visit https://www.sbir.dhs.gov. For more information on the DHS DNDO SBIR Program, please visit https://dnosbt.dhs.gov. The current S&T SBIR Solicitation has a closing date of 6 January 2010.
26	12/10/2009	General	If I "Recommend a Topic" and DHS feels that topic has ment, what would be the earliest possible "Posted Date" and "Closing Date"? https://www.sbirchs.gov/uploadrecommendation.asp	Recommended topics will be considered if the research area is relevant to DHS and its mission, there is a critical agency requirement, and the research is unique. Other programmatic priorities wil also be considered. A topic recommendation is not the same as submitting a proposal. Potential topic recommendation submitters will not be contacted united wither information is needed. Submitters of potential topics should monitor future solicitations. Due to the nature of a 'recommended topic', it is not possible to provide a 'posted date' and/or 'closing date'.

Primary application is in two areas unattended sensors that can be placed along the Southern or Northern US Borders with Mexico and Canada. These devices need to be concealed and be able to operate without recharging or replacement over long periods of time (see also the SBIR topic description for storage examples using cell phone technologies). The other use would be for concealed tags that would be affixed to people, objects, or vehicles. These devices would be extremely small and would also require long operating times without being recharged or replaced.	The questions I have are related to the applications space of your SBIR request. For example, the total anticipated quantity of units to be deployed could be a factor due to the availability in sufficient quantities of certain radioactive storopes. The location of use of these batteries could dictate their applicability (CONUS vs. remote areas). The time of use, 6 months or years 7 Human use (i.e., Cell/Sat phone) or unattended sensor? Disposable vs. re-usable? Can you please give me some guidance as to one or a few particular specific applications of interest to help narrow down the field?	10.1-005	12/17/2009	35
Typical battery pack found in cell phones. Target energy densities to exceed typical cell phone battery packs.	1. Could you provide more details on the battery to be replaced, i.e. baseline cell? 2. Could you provide targets on energy density. Whikig and/or Whi/??	10.1-001	12/17/2009	34
(www.fbo.gov.use the advanced search feature, solicitation if is DHSSBIR-2010.1) and the SBIR wabsite from may be having difficulty accessing the solicitation from the SBIR wabsite because some browser manufacturers currently do not recognize the authorized DHS certificate. You may receive a warming or error message stating that the certificate is from an unknown authority. The message is a minor issue with an easy workaround. Here are the instructions for proceeding to the website: NTERNET EXPLORER 7 'In Internet Explorer, click the "Continue to this website (not recommended)" link. The site should load normally. Select the "Or you can add an exception" link. Select the "Add Exception" button. A dialogue box should appear. Select the "Get Certificate" button. Select the "Confirm Security Exception" button. The website should load after you press the final button. You only need to add the certificate once per machine. You should experience a quicker load time once the security certificates are added or excepted. Then access the "Current Solicitation" and "Proposal Submission" tabs.	I had difficulty to visit your website https://www.sbir.dhs.gov. Could you please point out where and how I could access the latest solicitation and submit our proposals?	General	12/17/2009	ట
There is no preference to address a single biometric type vs. multiple biometrics. The program is meant to address DHS' needs and requirements and the topic description specifically mentions fingerprints, irises, and/or facial biometrics that are believed to represent the greatest need at this time.	Is focusing on only one biometric acceptable or will you only evaluate proposals that attempt to cover all modalities?	10.1-005	12/10/2009	32
Per the solicitation, Section 3.5 c, "The Cost Proposal will count as one page of your proposal no matter how it eprints out."	I am working on a Phase 1 proposal for the H-S8010 1 solicitation. According to the solicitation document, the Per the solicitation proposal is included in the 25-page limit. I would like to know if there is a pre-assigned number of pages the prints out cost proposal is worth (as the cover sheet is worth 2 pages) or if it depends on the actual length of the cost proposal generated on-line.	General	12/10/2009	ਹੁ ਪ
Per the solicitation, Section 3.5 c, "The Cost Proposal will count as one page of your proposal no matter how it prints out."	Can you please verify how many pages the cost proposal will count for against the 25 page ilm t for the DHS SBIR. The solicitation listed that the cover sheet will count as 2 pages, the technical proposal will begin at page 3, but what page number will the technical proposal end to accompdate the cost proposal page length?	General	12/10/2009	30
Per the solicitation, Section 1.6 e., "no further direct contact between proposes and Technical Points of Contact shall occur from November 18, 2009 through January 6, 2010 for reasons of competitive fairness." However, we can offer the following per the topic description. Due to the fact that bio-inspired sensor technologies are still relatively immature, we are folking for innovative efforts to incorporate these technologies into working detection systems. We are looking for what the small business community can come up with for incorporating these technologies of immuno-, enzymatic and whole cell sensors or other innovative bio-inspired technologies innovative and creative merging of fractitional explosives detection technologies with bio-inspired technologies are also of interest. Please refer to the following Review paper for more information on the bio-inspired technologies. Richard G. Smith, Natash D'Souza and Stephen Nicklin, "A Review of Biosensors and Biologically-inspired systems for Explosives Detection" Analyst. 2008, 133, 571-584.	l am interested in submitting a SBIR proposal in response to your DHS amouncement: SBIR 7 topic Number: H- SB010.1-004; Title: Molecular Recognition for Explosives Detection. Can we discuss our proposal so I make sure we address your solicitation issues correctly?	10,1-004	12/10/2009	29
The DHS SBIR Program specifically has funding available for small businesses to conduct research in areas that are retevant to the Chemical and Biological, Borders and Maritime Security, Human Factors, Explosives, Infrastructure and Geophysical, and Command, Control and Interoperability Divisions. Schmilar to the R&D programs of the S&T Directorate, the SBIR topics generally address the needs of the seven DHS Operational Units, i.e., U.S. Coast Guard, U.S. Transportation Security Administration, U.S. Customs and Border Protection, Federal Emergency Management Agency U.S. Clitzenship and Immigration Services. U.S. Immigration and Customs Enforcement, and U.S. Secret Service, as well as First Responders. Regarding other small business opportunities, please refer to the Long Range Broad Agency Announcement which is open through 31 December 2009. The Long Range Broad Agency Announcement and be found at https://baa.st.dhs.gov/. You.will.also.find.other.active.Solicitations on a broad range of topics at that site.	Other than SBIR, does DHS have any other grant programs for small businesses? It seems that most of your grants are focused on government organizations and universities.	Genoral	12/10/2009	28
The Small Business Act provides for "retention by a small business concern of the rights to data generated by the concern in the performance of an SBIR award". The Federal Acquisition Regulation, FAR 52.227-20, addresses the rights in data developed under an SBIR funding agreement. If you have existing patents on the technology you propose in response to the SBIR topic description, we would expect you to apply them if as necessary at no charge to the government.	If I recommend a topic, and DHS feels the topic has merit, what happens if I have patent rights regarding the technology of the solicitation?	General	12/10/2009	27
Answer	Question	Topic Area	Date Answered	ID#
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			As of December 17, 2009	
D#	Date	Topic Area	Question	Answer
36	12/17/2009	10.1-006	1. Are there target KPPs for size, weight, or power consumption? 2. Can you characterize the "typical" ground/rock/soil types that this system must work in? 3. Can we assume that longwave radio signals will propagate in the relevant environments? 4. What about acoustic signals?	 No specific size, weight, or power consumption performance parameters are provided. Smaller, lighter, and less power consuming is more desirable. Tever are no "Special" gound/force/sail types that the system must work in. It must be able to perform in any and all. The technology choice is left to the offeror.
37	12/17/2009	General	Where should the "Anticipated Benefits and Potential Commercial Applications" data be entered on the Cover Sheet?	Please include the "Anticipated Benefits and Potential Commercial Applications" in the technical abstract portion of the cover sheet. Note that, per the solicitation (3.5 a) "It your proposal is selected for award, the technical abstract and discussion of anticipated benefits will be publicly released on the DHS S&T SBIR website; therefore, do not include proprietary or classified information in these sections."
8	12/17/2009	General	We currently are in the process of proposing for a phase 1 DHS SBIR. In the solicitation it states that the cost proposal and the cover sheet will count against the page limit, it also clarifies that the cover sheet will count as Z i pages of the 25 page limit but it does not state how many pages the cost proposal will count. Can you please provide me with the number of pages the cost proposal will count. Can you please provide me with the number of pages the cost proposal will count against the page length?	Per the solicitation, Section 3.5 c, "The Cost Proposal will count as one page of your proposal no matter how it prints out."
39	12/:7/2009	General	Are we still able to submit technical questions relating to a specific SBIR topic in the current solicitation? If so, are these questions and answers made publicly available?	From November 18, 2009 through January 6, 2010 proposers may submit written questions to STSBIR PROPOSALS@drs.gov. Questions must be limited to technical information related to improving the indestanding of a particular topic is requirements; any other questions, such as those asking for advice or guidance on solution approach, will not receive a response. If information given in response to a question is deemed necessary for the preparation of proposals, that information will be made available to the public for general viewing on the FedibizOpps website at http://fedibizopps.gov.and.on.the DHS SBIR website at http://fedibizopps.gov.and.on.the DHS SBIR website at
40	12/17/2009	10.1-006	Is two-way communication between subterranean and above-ground personnel required for the GRIDLOC effort? Are there any size and weight constraints for the system? What is the typical duration of a subterranean mission?	 As discussed in the solicitation topic description, the purpose of GRIDLOC is to provide the current position of the system to personnel on the surface for possible rescue response. Two-way communication capability is not a requirement of the solicitation. No specific size, weight, or power consumption performance parameters are provided. Smaller, lighter, and less power consuming is more destrible. For the purposes of this solicitation topic description, a mission length will be one hour.
	12/17/2009	10.1-006	For robolics-oriented solutions, can we assume a fiber optic link to the robol? For first responders, what gear requirements can we impose?	1. The commercial robots are tethered and have controls and sensor data links. No standards have been established and therefore no assumptions should be made with regard to specific configuration. 2. There are no restrictions to the configuration of the proposed system.
42	12/17/2009	10.1-006 and General		Per the SBIR Policy Directive, 2002. Section 6a (5), "For both Phase I and Phase II, the RIR&D work must be performed in the United States. However, based on a rare and unique circumstance, agencies may approve a particular portion of the RIR&D work to be performed or obtained in a country outside of the United States, for example, if a supply or material or other item or project requirement is not available in the United States. The funding agreement officer must a papprove each such specific condition in writing in addition, per SBIR Policy Directive, Section 6(a)(2), "For Phase I, a minimum of two-thirds of the research or analytical effort must be performed by the awardee. Occasionally, deviations from this requirement may occur, and must be approved in writing by the awardee. Occasionally, deviations from this requirement may occur, and must be approved in writing by the funding agreement officer after consultation with the agency SBIR Program Manager/Coordinator."
43	12/17/2009	10.1-004	Is il sufficient that the technology detect explosives in a solid (e.g. powder) or liquid medium or is it necessary to also detect airborne explosives?	Due to the fact that bo-inspired sensor technologies are still relatively immature, we are looking for invovative efforts to incorporate these technologies into working explosive detection systems. We are looking for what the small business community can come up with for incorporating these technologies of immuno-, enzymatic and whole cell sensors or other innovative about sensor technologies, and creative merging of traditional explosives detection technologies with bio-inspired technologies are also of interest. Pease refer to the following Review paper for more info on the bo-inspired technologies. Richard G. Smith, Natasha D'Souza and Stephen Nicklin, "A Review of Biosensors and Biologically-inspired Systems for Explosives Detection," Analyst, 2008, 133 571 – 584. Due to the challenges of incorporating these technologies into a working explosive detector, it is not a requirement to detect alrborne explosives though it would be an exceptional technology if the technology could detect both gas and solids/liquids.
4	12/17/2009	10.1-004	Who will be the primary intended customer(s)? TSA baggage screeners? Port security? Law enforcement? Hazardous materials teams in fire departments?	The customer can be TSA and/or law enforcement.
45	12/17/2009	10.1-004	Are sensors that provide gas-phase detection preferred over solution-phase sensors for the homeland security applications connected with this topic? Vivolid a sensor that provided lower sensitivity and/or lower selectivity for gas-phase detection be preferred over a solution-phase sensor with ligher sensitivity and/or selectivity? Are there specific quantitative targets in mind for sensitivity and selectivity? If so, what are these values for gas-phase and solution-phase samples? What requirements are there regarding sensor size, weight, and power consumption? Does the sensor need to be portable?	We are interested in bio-inspired technologies such as immuno-, enzymatic and whole cell sensors or other innovative bio-inspired technologies, innovative and creative merging of traditional explosives detection technologies are also of interest. Due to the challenges of incorporating these technologies into a working explosives detector, it is not a requirement that these sensors detect in the gas-phase. If a sensor was very sensitive and selective and solution-phase, it would be considered. The types of sensitivity we are looking at are parts per million but if a technology could sense a large number of explosives but was less sensitivity, are are looking at are parts per million but if a technology could sense a large number of explosives but was less sensitive, it would still be considered. For Phase I, the proof of concept is required and it does not need to be portable. To advance to further phases, the technology does need to be portable (can be heavier and bulkier than hand-held). Please refer to the solicitation topic description.
46	12/17/2009	10.1-003	Are there specific DHS information technologies that should be considered for integration into the envisioned system?	The references to the NVAC, which were provided in the solicitation topic description, will suggest technologies for incorporation. The work underway at the VACCINE (Visual Analytics for Command, Control and Interoperability Environments) Center a Purdue and the CCICADA Center (Command, Control, and Interoperability Center for